

REMARKS

The specification has been amended to provide the Serial Numbers for the referenced co-pending applications. Claims 1-19 remain pending in this application.

Initially, the applicants note that an Information Disclosure Statement (IDS), PTO-1449 and IDS transmittal letter were filed on November 19, 2004. The Patent Application Retrieval (PAIR) system does not show these documents have been received. The applicants noticed that the IDS transmittal letter accompanying the IDS and PTO-1449 contained a typographical error in identifying the application (09/18,621 instead of 09/818,621). The IDS and PTO-1449 attached to the IDS transmittal correctly listed the Serial Number as 09/818,621. The applicants are unsure whether the typographical error in the IDS transmittal letter caused the documents to be misfiled or lost. In any event, attached herewith as Attachment A is a stamped postcard indicating PTO receipt of an IDS transmittal letter, an IDS and a PTO-1449 on November 19, 2004, along with a copy of the IDS and PTO-1449. The applicants respectfully request that the Examiner consider the documents listed on the attached PTO-1449 and return a copy with the next communication with the Examiner's initials indicating that these documents have been officially considered.

Returning now to the Office Action, claims 1-13 and 15-18 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Erimli et al. (U.S. Patent No. 5,953,335; hereinafter Erimli). The rejection is respectfully traversed.

Claim 1 recites a network device that includes a plurality of receive ports and data frame processing logic. Claim 1 recites that the data frame processing logic is configured to determine a priority associated with a received data frame. The Office Action states that Erimli discloses this feature and indicates that multicopy frames in Erimli have higher

priority than unicast frames and points to col. 6, lines 50-56 and col. 15, lines 62-66 for support (Office Action – page 3). The applicants respectfully disagree.

Erimli at col. 6, lines 50-56 discloses that switch 12 receives unicast frames, which are to be transmitted to only one other port, and multicast frames, which are to be transmitted to more than one port. This portion of Erimli also discloses that each port on switch 12 is represented by a separate MAC that has a receive FIFO and a transmit FIFO. This portion of Erimli does not disclose determining a priority associated with a received frame or that multicast frames have a higher priority than unicast frames.

Erimli at col. 15, lines 62-66 discloses that multicast queue 90 is a high priority queue used by buffer manager 72 to keep track of how many transmissions must be completed of a particular multicast frame before all buffers used to store the frame can be returned to free buffer pool 104. The mere fact that multicast queue 90 is considered a “high priority queue” does not mean that Erimli discloses or suggests that multicast frames have a higher priority than unicast frames, as alleged in the Office Action. Multicast queue 90 may be designated as a high priority queue so that buffer manager 72 can determine when to reclaim buffers used to store the frames (Erimli – col. 15, line 62 to col. 16, line 4). This reclaiming of buffers, however, has nothing to do with determining a priority associated with a received data frame.

Claim 1 also recites that the data frame processing logic determines whether a location in an external memory is available for storing the data frame, based on the priority of the received data frame. The Office Action states that Erimli discloses this feature and points to Fig. 9a, col. 13, lines 19-23 and 48-54 and col. 14, lines 49-62 (Office Action – page 3). The applicants respectfully disagree.

As discussed above, Erimli does not disclose determining a priority associated with a received data frame. Erimli, therefore, cannot disclose determining whether a location in an external memory is available for storing the data frame, based on the priority of the received data frame, as required by claim 1.

More particularly, Erimli at col. 13, lines 19-23 discloses that a copy number field (Fig. 9A) is used to indicate the number of copies successfully queued for transmission by port vector FIFO 70. This field is used to store the copy number for a frame pointer if buffer manager 72 needs to make space in multicopy cache 96 for new entries. Erimli at col. 13, lines 48-54 discloses port vector FIFO 70 calculates the number of copies after buffer manager 72 has copied a frame pointer to all the appropriate output queues. Neither of these portions of Erimli discloses determining whether a location is available in an external memory for storing the data frame, based on the priority of the received data frame, as recited in claim 1.

Erimli at col. 14, lines 49-62 discloses that buffer manager 72 services multicopy queue 90 and cache 96 in order to reclaim obsolete buffers. This portion of Erimli also does not disclose determining whether a location is available in external memory, based on the priority of the received data frame, as required by claim 1.

For at least these reasons, Erimli does not disclose or suggest each of the features of claim 1. Accordingly, withdrawal of the rejection and allowance of claim 1 are respectfully requested.

Claims 2-7 are dependent on claim 1 and are believed to be allowable for at least the reasons claim 1 is allowable. In addition, these claims recite additional features not disclosed by Erimli.

For example, claim 4 recites that the network device includes at least one memory configured to store address information corresponding to locations in the external memory, the at least one memory being divided into a number of groups corresponding to priorities associated with data frames received by the network device. The Office Action states that Erimli discloses this feature and points to Fig. 6 and col. 10, lines 39-58 for support (Office Action – pages 3-4). The Office Action also states that the Unicopy Bit represents low priority in comparison to the multicopy case representing high priority (Office Action – page 4). The applicants respectfully disagree.

Fig. 6 illustrates an output queue 74 for a 100 MB/s port. Each entry in the output queue includes a frame pointer and a unicopy bit. The unicopy bit may indicate if the frame is a unicopy frame. Erimli at col. 10, lines 39-58 discloses that the 100 Mb/s output queue 74 holds entries for frames to be forwarded to the 100 Mb/s ports. The output queue 74 illustrated in Fig. 6, however, is clearly not equivalent to a memory that is divided into a number a groups corresponding to priorities associated with the data frames. Further, as discussed above with respect to claim 1, the mere fact that a data frame is a unicopy frame does not indicate that the unicopy frame is a low priority frame or that a multicopy frame is a high priority frame. Lastly, even if, for the sake of argument, the unicopy frames and multicopy frames could be construed as being low and high priority frames, Erimli does not disclose or suggest at least one memory divided into groups corresponding to priorities associated with data frames received by the network device, as required by claim 4.

For at least these additional reasons, withdrawal of the rejection and allowance of claim 4 are respectfully requested.

Claim 5 recites that when determining whether a location in the external memory is available, the data frame processing logic is configured to access the at least one memory and determine whether an address in a first one of the groups corresponding to the priority of the data frame is available. The Office Action states that Erimli discloses these features and points to Fig. 7 and col. 11, lines 14-33 for support. The Office Action also states that the External Memory's Multicopy Queue Overflow corresponds to higher priority frames and the Port Output Queue Overflow corresponds to lower priority unicopy frames (Office Action – page 4). The applicants respectfully disagree.

Initially, the applicants note that Erimli does not disclose the claimed at least one memory, as discussed above with respect to claim 4. Therefore, Erimli cannot disclose or suggest data frame processing logic that accesses the at least one memory and determines whether an address in a first one of the groups corresponding to the priority of the data frame is available, as recited in claim 5.

Figure 7 of Erimli illustrates a map of external memory 36. Erimli at col. 11, lines 14-33 discloses that overflow areas store entries that do not fit into the control queues on switch 12 and may be placed in external memory 36. This portion of Erimli also discloses that overflow area 126 stores frame pointers awaiting transmission to the management port, overflow area 128 stores frame pointers awaiting transmission to the appropriate 10 Mb/s port or 100 Mb/s port and overflow area 130 stores frame pointers awaiting transmission to the expansion bus port. None of these portions of Erimli discloses or suggests determining whether an address in a first one of the groups corresponding to the priority of the data frame is available, as required by claim 5.

For at least these additional reasons, withdrawal of the rejection and allowance of claim 5 are respectfully requested.

Claim 7 recites features similar to claim 4. For reasons similar to those discussed above with respect to claim 4, withdrawal of the rejection and allowance of claim 7 are respectfully requested.

Claim 8 recites features similar to those discussed above with respect to claim 1. For reasons similar to those discussed above with respect to claim 1, withdrawal of the rejection and allowance of claim 8 are respectfully requested.

Claims 9-13 are dependent on claim 8 and are believed to be allowable for at least the reasons claim 8 is allowable. In addition, these claims recite additional features not disclosed by Erimli.

For example, claim 12 recites features similar to claims 4 and 5. For reasons similar to those discussed above with respect to claims 4 and 5, withdrawal of the rejection and allowance of claim 12 are respectfully requested.

Claim 13 recites that when the priority of the received data frame is high, the determining whether a location in the external memory is available includes accessing a first queue associated with high priority data frames and determining whether an address in the first queue is available. The Office Action states that Erimli discloses these features and points to Figs. 6, 8 and 10, col. 15, lines 62-66, col. 18, lines 28-35 and col. 13, lines 25-47 for support (Office Action – page 7). The applicants respectfully disagree.

As discussed above, Fig. 6 illustrates an exemplary output queue and Fig. 7 illustrates an exemplary external memory. Fig. 10 of Erimli illustrates the multicopy, reclaim and free buffer pool area of switch 12. None of these figures illustrates a queue

associated with high priority data frames. Erimli at col. 15, lines 62-66, as discussed above, merely indicates that multicopy queue 90 is considered a high priority queue. This is not equivalent to a queue associated with high priority data frames.

Erimli at col. 18, lines 28-35 discloses that free buffer pool 104 contains address pointers to all free buffers 140 in external memory. Erimli at col. 13, lines 25-47 discloses that buffer manager 72 schedules transmissions of the frames pointed to by the frame pointers. Neither of these portions of Erimli discloses or suggests accessing a first queue associated with high priority data frames when the priority of the received data frame is high or determining whether an address in the first queue is available, as required by claim 13.

For at least these additional reasons, withdrawal of the rejection and allowance of claim 13 are respectfully requested.

Claim 15 recites features similar to claims 1 and 13. For reasons similar to those discussed above with respect to claims 1 and 13, withdrawal of the rejection and allowance of claim 15 are respectfully requested.

Claims 16-18 are dependent on claim 15 and are believed to be allowable for at least the reasons claim 15 is allowable. Accordingly, withdrawal of the rejection and allowance of claims 16-18 are respectfully requested.

Claims 14 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Erimli in view of Goss (U.S. Patent No. 5,828,653). The rejection is respectfully traversed.

Claims 14 and 18 are dependent on claims 8 and 15, respectively, and are believed to be allowable for at least the reasons their respective independent claims are allowable. Goss does not remedy the deficiencies discussed above with respect to the rejection of claims 8

and 15. Accordingly, withdrawal of the rejection and allowance of claims 14 and 18 are respectfully requested.

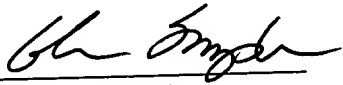
CONCLUSION

In view of the foregoing remarks, the applicants respectfully request withdrawal of the outstanding rejections and the timely allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, please feel free to call the undersigned attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.

By: 
Glenn Snyder
Reg. No. 41,428

Attachment: Copy of PTO stamped postcard
Copy of IDS and PTO-1449

Date: January 18, 2005

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Attachment A



Inventor(s): Somnath Viswanath et al.

Appln. No.: 09/818,621

Docket No.: F0715 (0020-0050)

Working Atty: GS

Date: November 19, 2004

Title: METHOD AND APPARATUS FOR PERFORMING PRIORITY-BASED ADMISSION CONTROL

The following was/were received in the U.S. Patent and Trademark Office on the date stamped hereon:

- ☒ Information Disclosure Statement Transmittal Letter
- ☒ Information Disclosure Statement
- ☒ PTO 1449



CUSTOMER NUMBER: 45114



Patent
Attorney's Docket No. F0715

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	
)	
Somnath Viswanath et al.)	Group Art Unit: 2664
)	
Application No.: 09/818,621)	Examiner: J. Shew
)	
Filed: March 28, 2001)	
)	
For: METHOD AND APPARATUS FOR)	
PERFORMING PRIORITY-BASED)	
ADMISSION CONTROL)	

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(c)

U.S. Patent and Trademark Office
220 20th Street S.
Customer Window, Mail Stop Amendment
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(c), applicant(s) bring(s) to the attention of the Examiner the documents listed on the attached PTO 1449. This Information Disclosure Statement is being filed after the events recited in Section 1.97(b) but, to the undersigned's knowledge, before the mailing date of either a Final Action or a Notice of Allowance. Under the provisions of 37 C.F.R. § 1.97(c), this Information Disclosure Statement:

- ☒ includes a certification as specified by Section 1.97(e).
- ☐ is accompanied by a fee of \$180.00 as specified by Section 1.17(p).

☐ **Certification 1:** Each item of information contained in the information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

☒ **Certification 2:** No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in §1.56(c) more than three months prior to the filing of the information disclosure statement.

☐ Copies of the listed documents are attached.

☐ Copies of the listed documents were previously submitted in a prior application, serial no. _____, filing date _____, upon which applicant(s) rely(ies) for the benefits provided in 35 U.S.C. § 120. Applicant(s) respectfully request(s) that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

☐ The following is a concise statement of relevance of the non-English language documents.

1. _____ discloses _____.

2. _____ discloses _____.

☐ English translations of the non-English documents are enclosed.

☐ In lieu of a statement of relevance or translation of the non-English documents, an English language version of a search report from the _____ Patent Office in a corresponding application citing these documents and setting forth the relevance thereof is enclosed.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claims in the application and applicant(s) determine(s) that the cited document(s) do not constitute "prior art" under United States law, applicant(s) reserve(s) the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

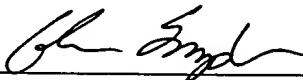
Applicant(s) further reserve(s) the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If any copending application(s) is/are cited on the attached PTO 1449, the Examiner's attention is directed to the foregoing application(s) in compliance with § 2001.06(b) of the Manual of Patent Examining Procedure. By identifying the copending application(s), the assignee and/or applicant of the application(s) do not waive confidentiality of the application(s). Accordingly, the U.S. Patent and Trademark Office is requested to maintain the confidentiality of the copending application(s) under 35 U.S.C. § 122.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1070.

Respectfully submitted,

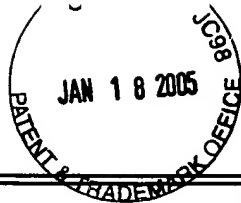
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CUSTOMER NUMBER: 45114

Date: November 19, 2004



INFORMATION DISCLOSURE CITATION PTO-1449		CUSTOMER NUMBER 45114	ATTORNEY'S DKT No. F0715		APPLICATION No. 09/818,621		
			APPLICANT(s) Somnath Viswanath et al.				
			FILING DATE March 28, 2001		GROUP 2664		
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
	2002/0107908	08/2002	Dharanikota				
	6,760,774	07/2004	Soumiya et al.				
	6,134,218	10/2000	Holden				
	6,754,241	06/2004	Krishnamurthy et al.				
	6,665,872	12/2003	Krishnamurthy et al.				
	6,801,501	10/2004	Knightly et al.				
	5,938,749	08/1999	Rusu et al.				
	6,385,638	05/2002	Baker-Harvey				
	6,141,323	10/2000	Rusu et al.				
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER				DATE CONSIDERED			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).